

**Listing of Claims:**

Claim 1 (previously presented): In a communication network, a method for forwarding data across said network, said method comprising:

assigning a priority level to said data, said priority level being associated with a delay tolerance of said data;

selecting said data for data compression responsive to said priority level; and  
sending said data through said network.

Claim 2 (original): The method of claim 1 further comprising:  
compressing said data only if said priority level is below a threshold.

Claim 3 (original): The method of claim 1 further comprising:  
determining a compression level for said data based on said priority level; and  
compressing said data according to said priority level prior to sending said data through said network.

Claim 4 (original): The method of claim 3 wherein determining said compression level comprises determining said compression level according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 5 (original): The method of claim 1 further comprising:  
determining a compression level for said data based on said priority level and network congestion; and  
compressing said data according to said priority level prior to sending said data through said network.

Claim 6 (original): The method of claim 5 wherein determining said compression level comprises determining said compression level according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 7 (original): The method of claim 1 further comprising;  
setting a threshold priority level for compression eligibility based on network congestion; and  
compressing said data only if said priority level is below said threshold.

Claim 8 (original): The method of claim 1 wherein said priority level corresponds to a quality of service class.

Claim 9 (original): The method of claim 1 wherein said data comprises a packet.

Claim 10 (previously presented): In a digital communication network, a method for forwarding packets across said network, said method comprising:  
providing a data compression system having a variable compression level;  
inputting said packets to said data compression system while adjusting said variable compression level for individual ones of said packets responsive to priority level of said packets, said priority level being associated with delay tolerance of said packets; and  
sending said packets as compressed through said network.

Claim 11 (previously presented): In a digital communication network, apparatus for forwarding data across said network, said apparatus comprising:

a compression switch that receives said data and assigns a compression level to said data responsive to a priority level of said data, said priority level being associated with a delay tolerance of said data;

a compression system that compresses said data according to said compression level; and

an output interface that forwards said data across said network as compressed by said compression system.

Claim 12 (original): The apparatus of claim 11 wherein said compression system assigns said compression level according to an inverse relationship between said compression level and said priority level so that high priority traffic is favored in allocating bandwidth.

Claim 13 (original): The apparatus of claim 11 further comprising:  
a network congestion estimator that determines network congestion; and  
wherein said compression switch assigns said compression level responsive to said network congestion.

Claim 14 (original): The apparatus of claim 11 wherein said data comprises a packet.

Claim 15 (original): The apparatus of claim 11 wherein said priority level corresponds to a quality of service class.

Claim 16 (previously presented): A computer program product for forwarding data across a network, said product comprising:  
code that assigns a priority level to said data, said priority level being associated with a delay tolerance of said data;  
code that selects said data for data compression responsive to said priority level;

code that sends said data through said network; and  
a computer-readable storage medium that stores the codes.

Claim 17 (original): The product of claim 16 further comprising:  
code that compresses the data only if said priority level is below a threshold.

Claim 18 (original): The product of claim 16 further comprising:  
code that determines a compression level for said data based on said priority  
level; and  
code that compresses said data according to said priority level prior to sending  
said packet through said network.

Claim 19 (original): The product of claim 18 wherein said code that  
determines said compression level comprises code that determines said compression  
level according to an inverse relationship between said compression level and said  
priority level so that high priority traffic is favored in allocating bandwidth.

Claim 20 (original): The product of claim 16 further comprising:  
code that determines a compression level for said data based on said priority  
level and network congestion; and  
code that compresses said data according to said priority level prior to sending  
said data through said network.

Claim 21 (original): The product of claim 20 wherein said code that  
determines said compression level comprises code that determines said compression  
level according to an inverse relationship between said compression level and said  
priority level so that high priority traffic is favored in allocating bandwidth.

Claim 22 (original): The product of claim 16 further comprising;  
code that selects a threshold priority level for compression eligibility based on  
network congestion; and  
code that compresses said data only if said priority level is below said threshold.

Claim 23 (original): The product of claim 16 wherein said data comprises a  
packet.

Claim 24 (original): The product of claim 16 wherein said priority level  
corresponds to a quality of service class.

Claim 25 (previously presented): A computer program product for  
forwarding packets across a network, said product comprising:  
code that provides a data compression system having a variable compression  
level;  
code that inputs said packets to said data compression system while adjusting  
said variable compression level for individual ones of said packets responsive to priority  
level of said packets, said priority level being associated with delay tolerance of said  
packets;  
code that sends said packets as compressed through said network; and  
a computer-readable storage medium that stores the codes.

Claim 26 (previously presented): In a data communication network,  
apparatus for forwarding data across said network, said apparatus comprising:  
means for assigning a priority level to said data, said priority level being  
associated with a delay tolerance of said data;  
means for selecting said data for data compression responsive to said priority  
level; and  
means for sending said data through said network.

Claim 27 (previously presented): In a packet switched network, apparatus for forwarding packets across said network, said apparatus comprising:

means for compressing data using a variable compression level;

means for inputting said packets to said compressing means while adjusting said variable compression level for individual ones of said packets responsive to priority level of said packets, said priority level being associated with delay tolerance of said packets; and

means for sending said packets as compressed through said network.